

# **Labrador Sea-Convection Data, Cd-Rom**

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## **LONG-TERM GOALS**

Our goal is to provide an easy means of distributing the data which has been collected during the Labrador Sea Deep Convection experiment between the participants of the experiment.

## **OBJECTIVES**

- Collect the data which has been obtained during the experiment.
- Convert the data into a common format.
- Assemble information on the data sets.
- Compile the data and information on a CD-ROM
- Distribute the CD-ROM to the experiment's participants.

## **APPROACH**

Martin Visbeck and Gerd Krahmann contact the experiment's participants and inform them of our project. After arranging the delivery of the data we convert it into a common format and assemble information on the data set.

## **WORK COMPLETED**

We have already collected several data sets collected by various Labrador Sea Deep Convection Experiment projects. We have also contacted researchers who had projects in the Labrador Sea during the same period but were not funded by ONR. We were already able to obtain some of these additional data sets and have been promised to get data from others sources.

All data sets were and are going to be obtained in the formats in which they are stored by the different contributing parties. We have converted them in to a common file format based on the computer system independent NetCDF format. This file format is especially well suited for the storage of large data sets together with all available meta-data. We try to follow the file format being developed for the storage of data obtained during the Worl Ocean Circulation Experiment (WOCE) as closely as possible in order to simplify exchange and usage of the data sets.

We have started to develop a set of common descriptions for all data sets stored in hypertext markup language (HTML) which will allow to browse the descriptions of the various data sets and make it

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easy to access the data. An example HTML page containing references to some of the data sets already collected and converted is shown in Figure 1.

## **RESULTS**

This year we have spent most of the time to inform the participants of the Labrador Sea Deep Convection experiment of our project and to start the collection process. All data sets we have obtained so far have been converted into a common format. A web server has been set up, though we haven't yet made the data publicly available. Collected and converted have been:

- 69 days of shipboard meteorological observations,
- 212 radiosonde ascents,
- 631 CTD profiles,
- 64 XBT profiles,
- 15 moored current meter records,
- 12 moored temperature and salinity records.

## **IMPACT/APPLICATIONS**

This project will considerably enhance the circulation and availability of the data collected during the Labrador Sea Deep Convection experiment. This will result in easier analysis of the data as not every single project will have to collect data from other participants.

## **TRANSITIONS**

*The final result of the project, the data CD-ROM, will likely be the basis for the further analysis by the participants of the Labrador Sea Deep Convection experiment.*

## **RELATED PROJECTS**

This project is based on all other projects of the Labrador Sea Deep Convection experiment. Thus close collaboration with these projects is essential. We were also successful in including projects outside the funding of the Office of Naval Research.

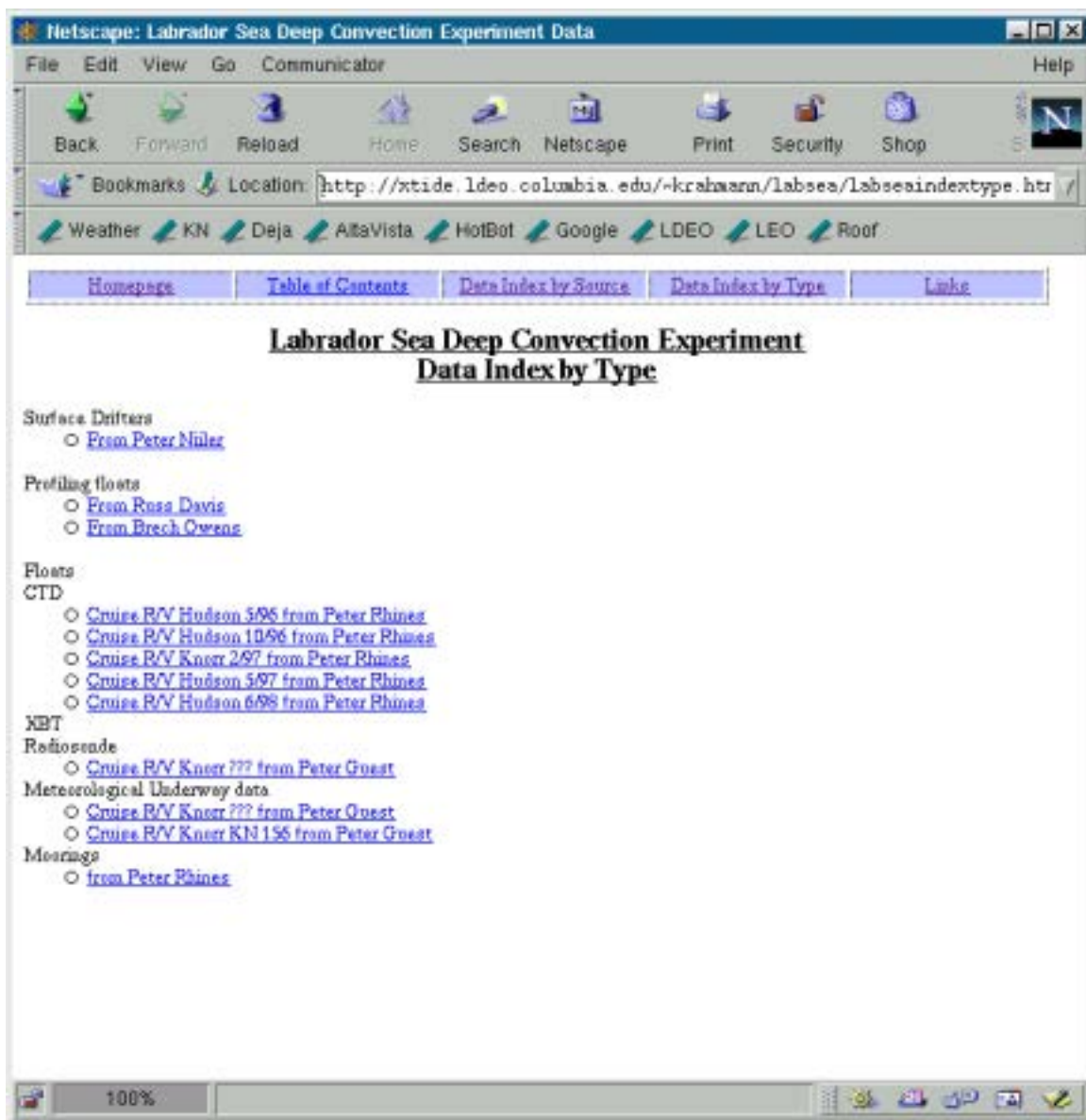
## **REFERENCES**

The whole project will be made available on the world wide web under  
<http://xtide.ldeo.columbia.edu/labseacd>

## **PUBLICATIONS**

The Lab-Sea group, The Labrador Sea Deep Convection Experiment. *Bulletin Am. Met. Soc.*, **79**, 2033-2058, 1998.

Lilly, J., P. Rhines, M. Visbeck, R Davis, J. Lazier, F. Schott and D. Farmer, Observing deep convection in the Labrador Sea during winter 1994-1995. *J. Phys. Oceanogr.*, **29**, 2065-2098, 1999.



*Figure 1: Example HTML page showing links to various datasets collected during the Labrador Sea Deep Convection experiment. The final CD-ROM will together with the data itself contain meta data for each dataset in form of such HTML pages. This will simplify the access to the datasets.*